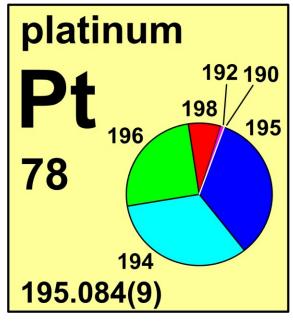
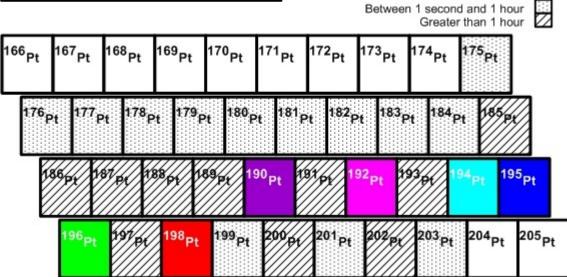
## platinum



Stable	Atomic mass*	Mole
isotope		fraction
<sup>190</sup> Pt	189.959 932	0.000 14
<sup>192</sup> Pt	191.961 038	0.007 82
<sup>194</sup> Pt	193.962 6803	0.329 67
<sup>195</sup> Pt	194.964 7911	0.338 32
<sup>196</sup> Pt	195.964 9515	0.252 42
<sup>198</sup> Pt	197.967 893	0.071 63

<sup>\*</sup> Atomic mass given in unified atomic mass units, u.

Half-life of redioactive isotope
Less than 1 second



## Important applications of stable and/or radioactive isotopes

Isotopes in medicine

- 1) <sup>195m</sup>Pt is used for pharmacokinetic studies of platinum based anti-tumour agents, in cancer diagnosis and cancer therapy.
- 2) <sup>195m</sup>Pt can be produced from the stable isotopes <sup>192</sup>Os or <sup>195</sup>Pt.

Isotopes in geology and planetary sciences

1) The continuous decay of <sup>190</sup>Pt to <sup>186</sup>Os over time can be used for dating of geological samples and iron meteorites.